

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement filed 9/30/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. In this case, the Mazzini et al. reference has not been submitted. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Claim Objections***

Claims 1-15 are objected to because of the following informalities: In the claims, the language “characterized in that” and “characterized by” does not conform to the U.S. standard practice. It is suggested that the “characterized in that” language should be changed to “wherein” and the “characterized by comprising” should be changed to “comprising” as detailed below.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 11, 12, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lilge et al. (US Patent 6,154,282).

With respect to claim 1, Lilge et al. teaches a lighting assembly for a luminescence analysis apparatus, in particular a fluorescence microscope, comprising a housing 10 connectable to a base structure of the apparatus and housing at least one light source 14; the lighting assembly further comprising at least one integrated lighting unit, in turn comprising a LED 50 defining the light source, and an optical collimating element (18, 24) associated with the LED to convey the light generated by the LED in a substantially parallel beam of light rays (Figure 1; Column 4, Lines 1-5).

With respect to claim 2, Lilge et al. teaches the lighting assembly wherein the lighting unit comprises an excitation filter located opposite the optical element, on the opposite side to the LED, to select a predetermined emission band of the LED (Column 4, Lines 14-18).

With respect to claim 3, Lilge et al. teaches the lighting assembly wherein the excitation filter is a band-pass filter (Column 4, Lines 14-18).

With respect to claim 4, Lilge et al. teaches the lighting assembly wherein the excitation filter permits the passage of light of a wavelength within a band superimposed on the emission band of the LED and located about a peak of the LED emission curve (Column 4, Lines 14-18).

With respect to claim 5, Lilge et al. teaches the lighting assembly further comprising an optical unit 20 associated with the lighting unit and located downstream from the excitation filter inside the housing; the optical unit comprising a dichroic plate 24 substantially facing the optical element and tilted with respect to the beam from the optical element (Figure 1).

With respect to claim 6, Lilge et al. teaches the lighting assembly wherein the optical unit comprises a hollow supporting body (Figure 1) having an entrance opening (Direction of arrow 36) and two opposite exit openings (Direction of arrows 28, 38); the dichroic plate being housed in the supporting body and interposed between the entrance opening and the exit openings (Figure 1).

With respect to claim 7, Lilge et al. teaches the lighting assembly wherein the optical unit comprises an emission filter 30 carried by the supporting body and associated with a first exit opening.

With respect to claim 11, Lilge et al. teaches the lighting assembly wherein the optical element is located in close proximity to the LED, and is connected integrally to the LED to define a preassembled module (Figure 1).

With respect to claim 12, Lilge et al. teaches the lighting assembly wherein the optical element (18, 24) is a complex-surface catadioptric collimator (Column 4, Lines 1-4).

With respect to claim 14, Lilge et al. teaches a luminescence analysis apparatus, in particular for fluorescence microscopy, comprising a lighting assembly (Column 4, Lines 35-47).

With respect to claim 15, Lilge et al. teaches the lighting assembly further comprising a sample support (Figure 1), and optical means 30 for directing the light generated by the lighting assembly onto a luminescent sample 32 on the support.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lilge et al. in view of Sander (US 2003/0007365).

With respect to claims 8-10, Lilge et al. teaches the lighting assembly as described above.

However, Lilge et al. fails to teach the lighting assembly further comprising two or more interchangeable lighting units and/or two or more interchangeable optical units.

Sander teaches a lighting assembly comprising a housing having two or more interchangeable lighting units (40, 41) and two or more interchangeable optical units (5a,b,c) and an optical collimating element 9, further comprising selecting means 26 for selectively associating a lighting unit with an optical unit (Paragraph 35), and wherein the selecting means comprise a movable first structure 22 supporting the lighting units; and a movable second structure 23 supporting the optical units; the structures being movable with respect to the housing to selectively position a lighting unit and an optical unit substantially facing each other (Paragraph 35).

It would have been obvious and advantageous to one of ordinary skill in the art at the time of the invention to modify and reconstruct the lighting assembly of Lilge et al. by adding the interchangeable lighting units and optical units from the teachings of Sander because “interchangeable lamps allow a burned-out lamp to be replaced with a spare lamp, so as to minimize the interruption time in the event of a lamp failure... [and] the filter itself is movable and can readily be replaced with other filters” (Sander; Paragraph 8).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lilge et al.

With respect to claim 13, Lilge et al. teaches the lighting assembly as described above, but fails to teach releasable means for attaching the housing to the base structure.

The applicant is advised that it has been held by the courts that the mere fact that a given structure is integral does not preclude its consisting of various elements, and that constructing a formerly integral structure in various portions involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 178. In this case, it would have been obvious to modify and reconstruct the device such that the housing is separate from the base structure using releasable means.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takahama (US 2002/0154397) teaches a lighting assembly with a releasable housing from the base. Gardiner et al. (US 2003/0035301) and MacKinnon et al. (US 2005/0228231) teach lighting assemblies with at least one light source and a band-pass filter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Makiya whose telephone number is (571) 272-2273. The examiner can normally be reached on Monday-Friday 7:30am - 4:00pm (ET).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on (571) 272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DJM/ 06/12/2008

/Y M. Lee/  
Primary Examiner, Art Unit 2885